

Report
On the Operation of the Street
Railroad Lines of San
Francisco

A Report to the Committee on Street Railroads of the
Merchants' Association of San Francisco

THE MERCHANTS' ASSOCIATION
OF SAN FRANCISCO.

February 1, 1909.



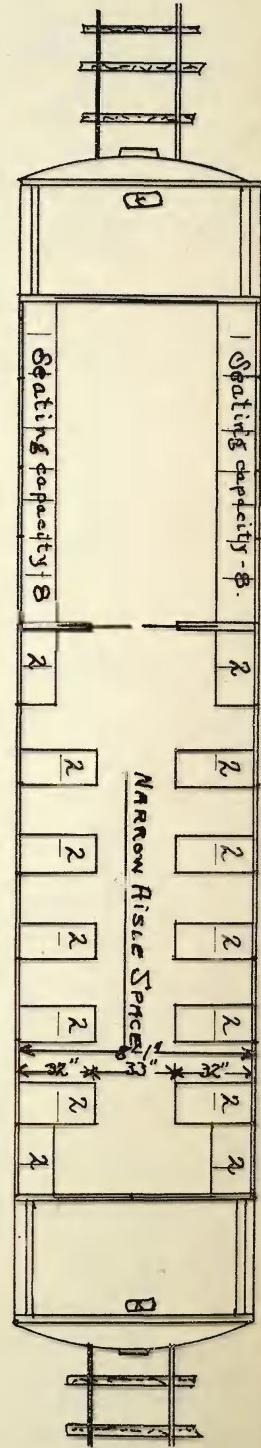
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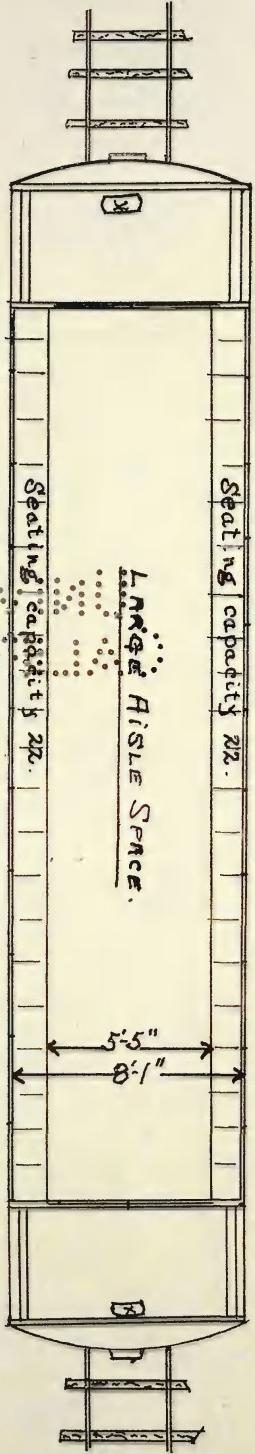
STREET RAILROAD LINES

OF SAN FRANCISCO

TF725
S3M4



*Total Seating Capacity, 44
Heavy Type Car on Market Street*



*Total Seating Capacity, 44
Polk & Larkin Style of Car*

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1909**

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PREFATORY

To the Members of the Merchants' Association of San Francisco:—

In view of the many complaints received from members and other citizens regarding inadequate street car service, the Board of Directors decided last January to have a thorough inspection made of all lines in the city for the purpose of ascertaining just what was the real situation and where improvements could be suggested. A special Inspector was employed to travel continually over all the lines at all hours of the day and evening for six weeks and to make a complete report with suggested improvements.

We submit herewith the full report of our Inspector, which was ordered printed and distributed to all members of the Association and to the Board of Supervisors for their information as to actual conditions.

This report is now being studied by our Committee on Street Railroads and the matter will be taken up in detail with the street railroad companies and the Supervisors, with the view of securing an improved service as soon as possible.

ANDREW M. DAVIS,
President

LETTER OF TRANSMISSION

San Francisco, February 1, 1909.

To the Committee on Street Railroads,

The Merchants' Association of San Francisco.

Gentlemen:

Pursuant to your instructions that "a careful inspection be made of every street railroad line in San Francisco, at all hours of the day and evening, for the purpose of ascertaining what is the character of service on each line, the system of handling crowds, transfer arrangements, numbering of cars, headway, etc., with the view of ascertaining if possible the cause of the many complaints from the public and what improvement in the service can be suggested that would give the public better service," I beg to submit the report hereto annexed.

In making this investigation, all lines in the city were travelled during the rush hours of the morning and evening and the slack hours during the middle of the day. Special attention was also given to the theatre travel at night and the Sunday travel to the Park, Beach, Ingleside and San Mateo.

Special reports were also made, pursuant to instructions, on the new system of numbering cars and on the possibility of running the Sutter Street cars over the inner tracks on Market Street to the Ferries, and are hereto annexed.

Respectfully submitted,

(Signed) Warren Manley,
Inspector.

NUMBERED LINES OF THE UNITED RAILROADS

Table showing number of each of the street car lines on February 1, 1909. These numbers are placed on top of each car and indicate the line travelled by it.

No. 1	Sutter	No. 12	Ingleside
No. 3	Sutter and Jackson	No. 14	Cemeteries
No. 4	Turk and Eddy	No. 15	3rd and Kearny
No. 5	McAllister	No. 16	Kentucky
No. 6	Masonic	No. 18	Mission and Polk
No. 7	Haight	No. 19	Bryant and Polk
No. 8	Market	No. 20	Ellis and Ocean
No. 9	Valencia	No. 21	Hayes and Ellis
No. 10	{ Guerrero	No. 22	Fillmore
	{ Glen Park	No. 23	Fillmore and Mission
No. 11	Mission and 24th	No. 24	Mission and Chutes

TABLE SHOWING INTERVALS AT WHICH CARS OPERATING ON MARKET STREET REACH FERRY ON AN AVERAGE EVENING

February 1, 1909

McAllister	.5:00	Valencia	.5:14½
Valencia	.5:01	Haight	.5:15
Masonic	.5:02	Sutter horse car.	.5:17
Haight	.5:03	Masonic	.5:17
Turk and Eddy	.5:04	Valencia	.5:18½
Market	.5:06	Market	.5:19
McAllister	.5:06	Haight	.5:19
Valencia	.5:08	McAllister	.5:20
McAllister	.5:08½	Masonic	.5:20
Haight	.5:09	Turk and Eddy	.5:20½
Turk and Eddy	.5:09½	Valencia	.5:21½
Valencia	.5:09½	McAllister	.5:22
McAllister	.5:12	Market	.5:23
Market	.5:13	Turk and Eddy	.5:23
Haight	.5:13½	Haight	.5:23
Turk and Eddy	.5:14	Valencia	.5:24½
Market	.5:14½	Sutter horse car.	.5:25½
McAllister	.5:14½	Turk and Eddy	.5:26½

McAllister	5:27	Valencia	5:44
Haight	5:27½	Turk and Eddy	5:45
Masonic	5:28	Market	5:45
Market	5:28	Haight	5:45½
Valencia	5:29½	McAllister	5:46
Valencia	5:31	Valencia	5:47
Turk and Eddy	5:31½	Sutter horse car.	5:47
Haight	5:32	Market	5:47
McAllister	5:32	Turk and Eddy	5:48
Turk and Eddy	5:33	Haight	5:48
Market	5:33½	Market	5:49
Valencia	5:34	Valencia	5:50
Market	5:34½	Haight	5:50½
Haight	5:35½	Masonic	5:51
Valencia	5:36½	McAllister	5:51
Masonic	5:37	Turk and Eddy	5:53
Market	5:37	Market	5:54
Sutter horse car	5:37½	McAllister	5:55
Turk and Eddy	5:38	Haight	5:55½
McAllister	5:38	Valencia	5:56
Haight	5:38½	Masonic	5:57
Valencia	5:39	McAllister	5:57
McAllister	5:40	Turk and Eddy	5:57½
Masonic	5:42	Haight	5:58
McAllister	5:42½	Valencia	5:59
Market	5:42½	Market	5:59½
Haight	5:44	McAllister	6:00

TABLE SHOWING INTERVALS AT WHICH CARS OPERATING
SOUTH OF MARKET STREET WITH THE FERRY
FOR AN EASTERN TERMINAL REACH THE
FERRY ON AN AVERAGE EVENING

February 1, 1909

Folsom	5:00	Howard	5:17
Mission and 24th	5:01	Folsom	5:17½
Howard	5:02	Glen Park	5:18
Folsom	5:04	Folsom	5:20
Glen Park	5:05½	Guerrero	5:21
Cemeteries	5:07	Ingleside	5:22
Guerrero	5:08	Howard	5:23
Ingleside	5:10	Folsom	5:25½
Howard	5:11	Glen Park	5:27
Folsom	5:12½	Mission and 24th	5:28½
Mission and 24th	5:16	Cemeteries	5:29½

Howard	5:30	Mission and 24th	5:45
Folsom	5:32	Folsom	5:48
Folsom	5:34	Mission and 24th	5:49
Guerrero	5:34½	Howard	5:49
Mission and 24th	5:35	Glen Park	5:50
Howard	5:36½	Guerrero	5:51
Folsom	5:37½	Ingleside	5:54
Ingleside	5:40	Mission and 24th	5:55
Glen Park	5:40	Howard	5:56½
Mission and 24th	5:41½	Cemeteries	5:58
Folsom	5:41½	Glen Park	5:59½
Cemeteries	5:44	Folsom	6:00
Folsom	5:44½		

RESUME OF TABLES

	Number of Cars on Line	Headway in Minutes	Number of Cars that Should reach the Ferry per Hour	Number of Cars that reach Ferry per Hour according to Table
McAllister	18	3	20	17
Valencia	23	3	20	17
Masonic	12	6½	9	8
Haight	21	2½-3	20	16
Turk and Eddy	20	4	15	13
Market	17	3	20	15
Sutter horse car	2	10	6	4
Folsom	15	4	15	13
Mission and 24th.	19	3½	17	8
Howard	13	4½	13	8
Glen Park	10	7	8	6
Cemeteries	11	12	5	4
Guerrero	12	10	6	4
Ingleside	10	12	5	4

REPORT ON THE OPERATION OF THE STREET CAR SYSTEMS OF SAN FRANCISCO

LINES OPERATING ON MARKET STREET

No. 4—Turk and Eddy

Maximum number of cars, 20. Minimum headway, 4 minutes.

ROUTE—Out Market from Ferry to Eddy to Devisadero to Sacramento to Lake to 6th Ave. to Clement to 8th Ave. to Fulton to 6th Ave. and return. (On returning—Devisadero to Market via Turk instead of Eddy.)

A four-minute headway is not enough for this thickly settled part of the city. The same schedule should be maintained all day, as cars do not run more frequently than once every eight minutes at times. The cars are more than crowded from 5 p. m. to nearly 7 p. m. Over 100 cash fares are rung up per trip, exclusive of transfers, which are not rung up. 24 people crowded the front platform one night, hindering the work of the motorman and making it utterly impossible for passengers to get on or off. From Market and Eddy west, the cars are so crowded during the rush hours at night that passengers cannot get on. The service in the morning is fair, as the crowd going down town is spread over a longer length of time. The track is in bad condition on this line, especially from Polk and Eddy west. The Supervisors have a measure up insisting that the United Railroads pave between the tracks or lose their franchise. The whole route shows bad streets due to this neglect.

If more cars were run, some should switch back at Eddy and Market to pick up the west bound passengers at transfer points, during the rush hours at night. The passengers east bound on such cars could get good service by transferring east to Market at Eddy and Market, as was done before the fire.

No. 5—McAllister

Maximum number of cars, 18.

Minimum headway 3 to 4 minutes; 5-minute cars running to Central Ave. only; 7 to 10-minute cars running to Chutes.

ROUTE—Out Market from Ferry to McAllister to Car House at McAllister and Central Ave. Every other car continues through to Chutes.

This line gives fair service at times, but is handicapped by the old style cars, which do not hold the number of people the heavy type of car does. The new track was laid on the south side of McAllister to Fillmore from Market, but not on the other side. All of the old track is in a deplorable condition and is damaging the gear boxes and armatures on the cars. The cars are greatly overcrowded during the evening rush hours. The cars that only go to the car house never carry at such time less than a hundred passengers, which is a great many for this style of car, while the cars that go through to the Chutes are crowded beyond reason. All of the cars should run through to the Chutes, especially mornings and evenings. 18 cars are not enough for this line and several are taken off during the slack hours, making extra long waits at transfer points.

No. 6—Masonic

(The name of this line is a misnomer, as it runs for but three blocks on Masonic Ave.)

Maximum number of cars, 12.

Minimum headway, $6\frac{1}{2}$ minutes.

ROUTE—Out Market from Ferry to Hayes to Fillmore to Oak to Masonic to Frederick to Clayton to Carl to Stanyan to Parnassas Ave. to Affiliated Colleges. (Return via Page instead of Oak.)

There are not enough cars on this line to give adequate service, especially during the evening rush hours. The cars are well crowded from 5 p. m. on, but not nearly so much as on other lines. The morning service is fair, none being especially overcrowded, the only drawback being the long wait for cars. This line does not run through as populous a district as other lines.

No. 7—Haight

Maximum number of cars, 21. Minimum headway, $2\frac{1}{2}$ and 3 minutes.

ROUTE—Out Market from Ferry to Haight to Stanyan.

This line gives as good service as any line running on Market Street. During the business hours in the morning the service is good and all through the day as well. During the evening rush a great many people are carried and the cars get crowded, but they run often, and if a crowded car would not stop but make the crowds that wait for their cars at the safety stations wait for the next car (which in the case of the Haight Street Line is right behind) they would not be so overcrowded. One Haight Street car often follows right after another in the evening, yet the first one will not have standing room and there will be seats in the second. This is a quite a contrast to London tramways, where the law does not allow them to stop for passengers unless there are vacant seats. The Haight Street line is the last one of these lines operating on Market Street that needs attention. It is one of the few lines of the city that has the new heavy track all the way.

No. 8—Market

Maximum number of cars, 17. Minimum headway, 3 minutes.

ROUTE—Out Market from Ferry to Castro and 18th Street.

This line, with the possible exception of the Valencia line, is the most crowded of all the lines running on Market Street during the evening rush hours. It would take twice the number of cars running at present to handle the crowd from 5 p. m. on. Previous to this time of the day the service is fairly good. The seating capacity of these cars (the regular heavy type) is 44. About 100 people can get into one of these cars, crowding the aisle and platforms. The new way of arranging the seats in the Polk and Larkin lines, namely side seats the length of the car, gives the same seating capacity, 44, but has the advantage of more aisle space. This is mentioned here to show how a rearrangement of the seats would accommodate more people by running the same number of cars. (See diagram, page 2.)

One reason for the overcrowding of these cars during the evening is because the great number of working people living in that part of

the Mission west of the Valencia line are dependent upon this one line. This section of the city grew rapidly after the fire, so that the present line carries many more passengers than the old Castro Cable line did.

No. 9—Valencia

Maximum number of cars, 23. Minimum headway, 3 minutes.

ROUTE—Out Market from the Ferry to Valencia to Mission to 29th to Noe.

This is a line that is always crowded, as it bears the burden of the travel to and from the Mission. The cars are crowded in the morning and at no time during the day can you count on getting a seat. From 5 p. m. the travel is very heavy. The Mission district has grown very rapidly, with business houses as well as homes. The people who live in the Mission and who work in the big buildings on Market Street and north of Market Street patronize this line instead of walking over a block to the Mission Street line, which gets its rush at 5 p. m., while the Valencia line has a continuous rush from 5 to 6 and after. More cars are needed on this line to handle the traffic. There is not a hill on the line. The headway is good, and with good track all the way trailers could be easily used to great advantage.

No. 1—Sutter

Maximum number of cars, 23. Minimum headway, 3 minutes.

ROUTE—From Market and Sutter out Sutter to Presidio Ave. to California to 6th Ave., every other car going to the beach via the old Cliff House Steam Line.

This line does not run on Market Street, strictly speaking, but it should and does to a certain extent through its extension in the two horse cars that run down Market to the Ferry. This line is pretty well crowded at all times of the day, carrying more passengers during the middle of the day than the Turk and Eddy line that runs almost a parallel route and draws its passengers from the same neighborhood. It is not an uncommon thing for 30 passengers to board these cars at the Fillmore Street transfer point, bound either way, and the same thing at the Kearny Street transfer point and the Polk Street transfer point, while west bound. This line should run to the Ferry, not only to relieve the congestion on Market Street, but for the benefit of its patrons, as is attested by the number of people transferring at Sutter and Market. **The Sutter Street transfers do not state that they are good on east bound Market Street cars to the Ferry**, thus causing many people to ride on the horse cars who, if they were informed, would transfer to one of the numerous Market Street cars in preference.

Horse Car Extension

There are two horse cars running on the outside tracks on Market Street from Sutter and Market to the Ferry. They leave about every

10 minutes and take nearly 20 minutes for the round trip. They are overcrowded at all times of the day and are a disgrace to a modern city. People do not know that transfers are good on all the lines running on Market Street and the company takes no pains to so inform the public.

(Note—The Merchants' Association made earnest efforts to find a way by which the Sutter Street cars might be operated over the outer tracks on Market St. under a temporary permit and was disappointed that its efforts were not successful. It still hopes that a solution of this matter will be reached that will be satisfactory to all parties).

No. 3—Sutter and Jackson

Maximum number of cars, 23. Minimum headway, 6½ minutes.

ROUTE—On Sutter from Market, thence out Jackson to Presidio Ave., via Fillmore Street.

The electric line running on Sutter from Market, thence out Jackson to Presidio Ave. via Fillmore St., has just resumed service and is always crowded, being greatly overcrowded from 5 o'clock in the afternoon.

Passengers who want to go to the Richmond District repeatedly board these cars on Sutter Street, east of Fillmore, and do not find out their mistake until the cars turn off at Fillmore. Fillmore and Sutter Streets is one of the busiest corners in the city, and the large cars turning from Fillmore into Sutter have many narrow escapes from accidents each day. This line would give more satisfaction if run on Fillmore and out Jackson.

SUNDAY CROWDS

As handled by the United Railroads on the Sutter, Turk and Eddy, Ellis and O'Farrell Lines.

The Sunday traffic is quite different from the week day travel, not only in the number of passengers carried, but the time the rush is on and by what lines effected.

The Sutter Street line with its extension to the California Street electric line at 6th Ave., and California, transports a great many people to the beach from noon time on. At about 4 o'clock the crowds begin to return to town. From 100 to 150 passengers are carried west bound, while the east bound traffic is not so heavy.

The Turk and Eddy line is effected by the same rush to the park. Between 120 and 125 passengers being carried each trip.

The Ellis and O'Farrell Street line, with the extension west on H Street, south of the park, has the same rush to both park and beach. Fully 150 passengers are carried each trip, and twice the present number of cars are needed to bring the crowds in from the beach via H Street.

There is a short rush to the Ferry Sunday mornings from 7 a. m. to 9 or 10 a. m. depending upon the weather. The service is none too good on the lines running on Market Street, but there is no overcrowding as there is on the west bound cars in the afternoon.

CROSS TOWN LINES

No. 22—Fillmore

Maximum number of cars, 19.

Minimum headway, 3 minutes.

ROUTE—Broadway and Fillmore, south on Fillmore to 13th to Church to 16th to Bryant.

Crowds patronize this line at all times of the day and night. It grew faster than any line in the city after the fire, but as the large business houses leave Fillmore Street, it will have fewer passengers. It will always be a bigger line than before the fire, however. The service at present is good, but the aisles and doorways are always crowded. If the outside seats were arranged parallel to the sides of the car, as the inside seats are, it would aid greatly in handling the crowds and at the same time would give the same seating capacity. From ten to twenty passengers board each car during the day at the intersection of Fillmore with Sutter, Turk, Eddy, McAllister, Haight, and Market Streets, as well as 16th and Mission.

There is one defect in the transfer system on this line. Transfers from east bound Turk and Eddy Street cars are not accepted on north bound Fillmore Street cars, though they are from **all other east bound lines**. This prevents people living on the route of the Turk and Eddy line from getting over on Union Street, Harbor View district, etc., without paying two fares.

No. 23—Fillmore and Mission

Maximum number of cars, 7.

Minimum headway, 9 minutes.

ROUTE—East on Sacramento from Devisadero to Fillmore to 13th to Church to 16th to Mission to 29th.

For the most part, this line is but a duplicate of two lines, the Fillmore No. 22 and the lines running on Mission Street. What few cars there are, with a poor headway, do well toward relieving the traffic on Mission and Fillmore Streets, but the line fails in giving service as a cross town line in having Sacramento and Devisadero Streets for a western terminal. (See criticism of Sacramento Cable Line). If enough cars were run to reduce the headway to 3 or 4 minutes, this line would be a connecting link between the Sacramento Cable and passengers desiring to go farther west. If this line were extended north on Devisadero from Sacramento to Jackson (where the one Devisadero car now runs) and then west on Jackson to Presidio Avenue, the western terminal of the Jackson-Sutter line, it would do much better. All that is needed are curves at Sacramento and Devisadero and Jackson and Devisadero. The line at present is not crowded at any time and only has a handful of passengers upon arriving at either end of the line.

No. 24—Mission and Chutes

Maximum number of cars, 13. Minimum headway, 7 minutes

ROUTE—29th and Mission, along Mission to 16th to Church to 13th to Fillmore to Oak to Devisadero to Sacramento to Lake to 6th to Fulton to 8th to Clement to 6th. (Returning via Page from Devisadero to Fillmore instead of Oak).

There are not enough cars on this line to give good service, yet the cars are well filled all through the day, and very nearly crowded at five and six o'clock. It does good service toward relieving the travel on the Turk and Eddy line and the Mission Street lines. Its principal transfer points are 16th and Mission, Haight and Fillmore, McAllister and Devisadero, Sutter and Devisadero. Either more cars should be added or the Mission terminal shortened. The headway is poor at present.

No. 18—Polk and Mission

Maximum number of cars, 8.

Minimum headway, 8 minutes

This is one of the many overcrowded cross-town lines. Only eight cars are operated with an 8-minute headway all day long, no provision being made for rush hours. At 10 o'clock in the morning this line carried 100 cash fare passengers and 101 passengers on transfers, on one car for a single trip. The headway is rarely lived up to and it is not unusual to wait 15 or sometimes 20 minutes for a car. Crowds await these cars at the transfer points at Market and 9th, Larkin and McAllister and Polk and Sutter. A four-minute headway would be none too good for this line. (The old Polk and Larkin Cable line had a $2\frac{1}{2}$ -minute headway).

No. 19—Polk and Bryant*

Maximum number of cars, 14.

Minimum headway, 8 minutes.

ROUTE—On the same tracks as the Polk and Mission from Lombard and Polk, along Polk and Larkin to Larkin and Grove Streets, where it goes up Grove and crosses Market at 10th, then west on Bryant to 26th.

Eight cars are used up to the middle of the afternoon, when fourteen are run under an 8-minute headway. Seventy-five passengers is a small load for the middle of the day, and when the working people are going home, it is often impossible to get on the cars at the transfer points, especially Polk and Sutter and at 10th and Market.

*Since the above report was made, the Bryant and Polk Streets line has been discontinued and a new line, designated Ninth and Polk, will be operated from Ninth and Brannan Streets, via Ninth, Larkin and Polk Streets to Lombard Street. This line is designated No. 19.

LINES OPERATING ON THIRD AND KEARNY STREETS

No. 15—Third and Townsend, Bay Street and North Beach

Maximum number of cars, 12. Minimum headway, 4 minutes.

ROUTE—3rd and Townsend via 3rd to Kearny to Broadway to Powell to Bay.

Twelve cars are operated on this line with a 4-minute headway all day long, no provision being made for the rush hours. The cars seldom live up to the headway and are always overcrowded. From 5 p. m. to 7, and in the early morning, it is hard to get on the cars at all. This line needs immediate attention. 150 passengers is the average trip during the day time.

No. 15—Third and Townsend and Ferries, via 3rd, Kearny, Broadway and East Streets

Maximum number of cars, 12. Minimum headway, 4 minutes.

ROUTE—Third and Townsend via 3rd to Kearny to Broadway to East Street to Ferry Depot.

Twelve cars are operated on this line with a 4-minute headway, no provision being made for the rush hours. The cars do not live up to their headway and are always crowded on Kearny and 3rd Streets during the day. The cars of this line are continually blocked by teams on Kearny and 3rd Streets. Rarely less than 100 passengers are carried per trip and in the evening the cars are more than overcrowded.

No. 16—Kentucky

Maximum number of cars, 7. Minimum headway, 5 minutes.

ROUTE—3rd and Townsend via 3rd to Berry to 4th to Kentucky to 22nd Ave.

Seven cars only are operated on this line, with a 5-minute headway. The headway on this line means nothing, as the cars are blocked at the bridge quite often and by heavy teams, so that they cannot be depended upon. There is no reason why this line should run to 3rd and Market, if more cars were put on the other two lines running on 3rd Street. It would avoid confusion to have them stop at 3rd and Townsend and transfer to the other two lines. The vast crowds that wait at 3rd and Market for a car north bound on Kearny invariably climb on these cars when they switch back at 3rd and Market. The delay generally blocks a 3rd Street car that is ready to go through on Kearny Street. These cars are only overcrowded during the rush hours, when they give poor service to the working people who have to patronize them.

No. 20—Ellis and Ocean

Maximum number of cars, 26. Minimum headway, 2½ minutes.

ROUTE—Out Ellis from Market to Hyde to O'Farrell to Devisadero to Oak to Stanyan to H to 19th, (returning on Ellis from Devisadero to Hyde instead of O'Farrell and on Page from Stanyan to Devisadero instead of Oak.) From 19th and H every other car continues out H to Ocean Boulevard, thence west to B Street. At Ellis and Market about every third car continues via 4th Street to Townsend to 3rd.

These cars are always crowded. From 7 to 9 in the morning and 5 to 6:30 at night they are overerwded. During the day so many cars are taken off that the service is very poor, with long waits, thus crowding the cars all through the day. The same schedule should be maintained all through the day. The cars that run west from 19th and H give good enough service, but as this line carries all of the passengers from the western addition and the Sunset and Richmond districts to the Southern Pacific Depot at 3rd and Townsend, via the cars that run over 4th Street, more of the cars should run over here. The service to the depot at present is poor. Another noticeable feature is that nearly a car full of passengers alight from each car stopping at Ellis and Market, showing that the passengers are continuing "in a general direction," to use the railroad company's phrase. Why could not some of these cars run down Market to the Ferry?

The principal transfer points are at Ellis and Market and Ellis and Fillmore, where from 10 to 30 passengers board each car.

This is a very important line, with a very long route covering a great deal of the city and many residence districts, consequently it needs attention.

No. 21—Hayes and Ellis

Maximum number of cars, 7. Minimum headway, 8½ minutes.

ROUTE—Out Ellis from Market to Hyde to O'Farrell to Devisadero to Hayes to Stanyan to Fulton, returning on Ellis from Devisadero to Hyde instead of O'Farrell.

Poor service marks this line also. An 8½-minute headway is insufficient service to give people here. Of course where the line runs on the tracks of the Ellis and Ocean lines, it is simply that many more cars relieving the congestion, but from Devisadero west it is poor service for the people dependent upon this line for transportation. The line is crowded all day long, especially early mornings and in the evening. If the line had more cars it would relieve the congestion on the McAllister Street line, as its western terminus is the same, namely, the Richmond District around the Chutes, which is a rapidly growing part of town.

Montgomery and 10th

Maximum number of cars, 6. Minimum headway, 9 minutes.

ROUTE—10th and Bryant via 10th to Market to Polk to Grove to City Hall Avenue to Leavenworth to Post to Montgomery Street to the intersection of Montgomery Street, Washington Street and Montgomery Avenue, via Washington to Kearny.

This is another line with few cars and poor service, consequently it is never crowded and little patronized. This line will increase in travel and importance as the surrounding districts are built up, especially along Post and Leavenworth Streets. Two or three more cars would reduce the headway, so passengers would be willing to wait for cars.

6th and Sansome

Maximum number of cars, 4. Minimum headway, 12 minutes.

Routes—**Southern** end of the line—north on 6th from Brannan to Market, along Taylor to Post. **Northern** end of the line—east on Bush from Kearny to Sansome to Chestnut.

This line was divided into two, as the cars were so often blocked by teams and building material on Kearny and Post Streets (the connecting link between the two present divisions) that no adequate service could be maintained. The service at present cannot be called service, as a 12-minute wait for a car is beyond reason in such a district. 6th Street is rapidly rebuilding and needs better attention. The other end that runs over Sansome Street seems to have been extended to reach the new Free Market and the wholesale houses that have been built in that part of town since the fire. The cars should run over the connecting link and should have twice the number of cars at least. The opening of the new retail center on Post, Sutter, Stockton and Grant Ave. on March 1st will demand the service. The cars of this line are not crowded at present and have no rush hour, but do a fair business all through the day. (Note. Since the above was written the track on Post Street has been put in use, so this is one continuous line from 6th and Brannan to Sansome and Chestnut).

Mission and Brannan

This is an important line of one car running every twelve minutes on Ninth Street between Brannan and Mission Streets. It is never crowded and carries but few passengers, yet it would give some sort of service if the car ran continually instead of laying over at the ends of the line. It is strongly recommended that this be done, as there is no good reason for their waiting any length of time at either terminus.

Eighteenth

Maximum number of cars, 10. Minimum headway, 6 minutes.

ROUTE—Out Harrison from 8th to 14th to Guerrero to 18th to Falcon Avenue to Clayton to Ashbury to Frederick to Clayton to Waller to Stanyan.

People living in Ashbury Heights, Buena Vista Heights and the surrounding country are dependent upon this line for service. A six-minute headway is not very encouraging for growing neighborhoods. People build much sooner where they see good car service than they do where it is neglected, as this line is. Mornings and evenings the cars get crowded at times, due to the long waits between cars, though the traffic could be handled very nicely with a little shorter headway.

LINES OPERATING SOUTH OF MARKET WITH THE FERRY FOR THE EASTERN TERMINUS

No. 10—Guerrero Street Line

Maximum number of cars, 12. Minimum headway, 10 minutes.

ROUTE—Out Mission from the Ferry to 14th Street to San Jose Avenue and Ocean View.

This is one of the five lines running on Mission Street, and though each line starts at the Ferry and goes out Mission Street, they branch off to different parts of the Mission. A 10-minute headway is poor service for a passenger wanting to go to the end of the line, but for service on Mission Street alone, between the five lines, they run very regularly. This Guerrero Street line is crowded in the morning from 7 to 8. The only lines south of Market that are crowded in the morning are lower Mission, Howard and Folsom Street lines, as the working men employed in the machine shops, factories, etc., live in the Mission and use these lines. The cars are crowded again at 5 p. m., but not at 6 p. m. The travel during the day is light. The Guerrero Street line needs new tracks the entire length of the route and larger cars.

No. 10—Glen Park

Maximum number of cars, 10. Minimum headway, 7 minutes.

ROUTE—Out Mission from the Ferry to 14th to Guerrero to Chenery Street and San Jose Ave.

This line gives a little better service than the other line numbered 10, the Guerrero Street line, though they run over the same tracks most of the way. It is crowded from 7 to 8 a. m., and 5 p. m.,

but not at 6 p. m., same as the Guerrero Street line, with light travel during the day. The tracks are in poor condition and the heavy type of car is needed. 16th and Guerrero is the busiest transfer point on this line. This line should have a separate number from the Guerrero Number 10.

No. 11—Mission and 24th

Maximum number of cars, 19. Minimum headway, $3\frac{1}{2}$ minutes.

ROUTE—Out Mission from the Ferry to 22nd to Chattanooga to 24th to Hoffman Ave.

This line bears the burden of the Mission travel and should be relieved by the other lines running on Mission Street, or even new tracks with the heavy type of car would possibly double the efficiency of the service. It is crowded beyond the safety point around 7 a. m., the working men often climbing upon the roofs of the cars. At 5 p. m. the line is crowded again, while by 6 o'clock a passenger can generally get a seat. The travel all through the day is brisk on these cars, and they give good service except as stated at 7 a. m. and 5 p. m. The districts tapped by this line are thriving, growing centers and should have more attention paid to them.

No. 12—Ingleside

Maximum number of cars, 10. Minimum headway, 12 minutes.

ROUTE—Out Mission from Ferry to Onondaga Avenue to Ocean Avenue to Ingleside.

This line gives a very poor headway service. Ingleside and Parkside are growing rapidly, especially the district near the junction of Ocean and Onondaga Avenues. The fastest cars and heavy rails should be used on a line such as this. Good time could be made in the outlaying districts where few stops are made. Instead of making improvements the line seems to be neglected.

There is no need of this line running to the Ferry, making it one of the longest lines in the city. The two or three cars on lower Mission Street at any given time do not relieve the congestion there, as the Ingleside cars do not get a load until well out Mission Street. Rarely more than half a dozen people board the cars at the Ferry, and they often leave without a single passenger. The same applies upon reaching the Ferry. Much better service could be given and better results obtained, if this line started from some point on Mission Street, say 14th, and then went to Ingleside. This would allow transferring from all lines running on Mission Street with good service in connecting with the Ferry.

No. 14—Cemeteries

Maximum number of cars, 11. Minimum headway, 12 minutes.

ROUTE—Out Mission from the Ferry to St. Daly's Hill and Colma to Cemeteries.

This line is well crowded mornings and evenings, while during the day, though the travel is strong, it is not extra heavy. Sundays and holidays this line is crowded all day with passengers going to the cemeteries and down the peninsula. More cars are needed for the rush hours and extra provision should be made for the Sunday travel. Passengers are picked up at all the transfer points, though the intersection of 16th and Mission Streets is undoubtedly the biggest point.

Folsom

Maximum number of cars, 15. Minimum headway, 4 minutes.

ROUTE—Out Folsom from the Ferry to 26th and Precita Avenue.

The same crowds board the cars of this line in the early morning and at 5 p. m. that board the lines running on Mission Street. At 6 p. m. the traffic is light and good service is given all through the day. Some of the first style of heavy type cars are used on this line, which is a convenience to passengers and accommodates a larger number of people. The intersection of Folsom with 3rd as well as 16th Street are the biggest transfer points. This line does not need as much attention as do the other South of Market lines.

Howard

Maximum number of cars, 13. Minimum headway, 4½ minutes.

ROUTE—Out Howard from Ferry to 24th to Rhode Island.

Though this line does not carry nearly as many passengers as the Mission Street line, it could stand a great deal of improvement in the way of new tracks and the heavy type of car. The 4½-minute schedule is not lived up to either, it often being 6 and 7 minutes before a car comes. This line is pretty well crowded at 7 in the morning and again at 5 in the evening, but not at 6. All during the day the travel is light. The only transfer point of note is at Howard and 3rd Streets, where the greatest number of passengers board the cars.

LINES OPERATING SOUTH OF MARKET WITH MARKET STREET AS A TERMINUS

Bryant

Maximum number of cars, 7. Minimum headway, 8 minutes.

ROUTE—Along 2nd Street from Market to Bryant to 26th to Mission, returning from 10th via Brannan instead of Bryant into Second Street.

This line gives insufficient service. There is not much travel in this part of town and as the whole route is through the burnt district (a great deal of which out on Bryant Street has not been rebuilt), it is not expected to handle many passengers. It gets its biggest crowds at 7 a. m. and 5 p. m., but what traffic is does handle through the day should be given better service. The main transfer point is at 16th and Bryant.

Mail Dock

Maximum number of cars, 2.

Minimum headway, 12 minutes.

ROUTE—From Market and 5th along 5th to Bluxome Street to 4th to Townsend to 3rd to Brannan to Mail Dock.

The route of this line has been extended, as formerly it simply ran from 3rd and Brannan to the Mail Dock. It should either be made an important line or discontinued, as it has no rush hours, but gets a crowd spasmodically. It is intended presumably to carry passengers between the three centers of travel—the Mail Dock, the S. P. Depot at 3rd and Townsend, as well as the freight depot at 4th and King and 5th and Market. 5th and Market is a travel center, in that nearly all the railroad ticket offices are in the Flood Building, besides being the terminus of the San Mateo Electric line. A person would often fail to catch a train or a boat waiting for the cars of this line.

8th and 18th

Maximum number of cars, 16.

Minimum headway, 3 minutes.

ROUTE—From 8th and Market along 8th to Bryant to 16th to Kansas to 17th to Connecticut to 18th to Kentucky to Railroad Avenue to 22nd Ave.

In conjunction with the Kentucky Street line this is the only line that reaches the new wholesale district, viz., from Channel Street to South Street and from 8th to the bay. Through the extension line (Railroad Ave. line) and in conjunction with the Kentucky Street line, it is the only way by which the Union Iron Works, the Reis tract and the adjoining new tracts of land that are being converted into residence districts, may be reached. It gives fair service at present, though crowded at 7 a. m. and 5 p. m., but is not crowded at 6 p. m. as the working people patronizing this line leave work at 5 p. m. All through the day the travel is heavy, though not to extremes. This line bids fair to be one of the most traveled in town before long and needs attention on that account. Just at present the line could do better work by cutting right over 8th through the wholesale district to where the line now runs on 18th and Connecticut. The route traveled between these points is simply duplicating part of the route of the Bryant Street line (on Bryant from 8th to 16th) and the

Filmore Street line No. 22 could continue over 16th from where it stops at Bryant to 18th and Connecticut to accommodate the pupils of the California School of Mechanical Arts (Lick School) and the Wilmerding School of Industrial Arts at 16th and Utah.

CABLE LINES

Powell

Maximum number of cars, 6. Minimum headway, 5 minutes.

ROUTE—From Powell and Market over Powell to Jackson to Mason to Montgomery Avenue to Taylor to Bay Street.

This line gives much better service than the number of cars and the headway would suggest, though two or three cars more would not be amiss. The service on Powell Street over as far as Jackson, is relieved by the Jackson and Washington Cable line, running 8 cars on a 5-minute headway during the day, and 11 on a 3½-minute to 4-minute headway during the rush hours. The transfer service, the time and all, are good on these cars, much better than on the electric lines. The cars are crowded all day long, but are rarely as over-crowded as the electric cars are. The North Beach district is growing very fast and when the new Columbia and Orpheum theaters open, as well as the three cafes that will center at Powell and Eddy and Market Streets, this line will need attention as well as a large increase in the number of cars.

Sacramento

Maximum number of cars, 8. Minimum headway, 4½ minutes.

ROUTE—Sacramento and Fillmore down Sacramento to Larkin to Clay to Ferry, returning via Sacramento instead of Clay.

The need of more cars and better service on this line is apparent from the crowds that travel on it from 4:30 p. m. up to 6:30 p. m. This is the only time of day that the cars are crowded, however. During the day, travel is light and from 6:30 a. m. to 9:30 p. m. the same people go down town that return between 5 and 6 p. m. The downtown business houses near this line are growing and the dwellings are being rapidly built in the burned district east of Van Ness Avenue. The United Railroads made a mistake, however, when they tore up all the old cable slot and track on Sacramento Street between Devisadero and Fillmore. Heavy tee rails and a well paved street now take the place of what was needed, but the cable slot on Sacramento from Devisadero to Walnut Street still remains, as well as the old Jackson Street cable slot on Presidio Avenue from Jackson to California. These remain to rust and mar the use and looks of the street, but the very ones that were needed were torn out in order to get an electric line. The Sacramento Street line is spoiled by terminating

at Fillmore. In the first place, it ends on a steep hill with a switch at the end, which is unsafe and a menace to the public. All of the gripmen complain of the difficulty of stopping on the hill. In the second place, a connection with the Turk and Eddy line at Sacramento and Devisadero would give some service, so passengers could travel west. This connecting link is now filled by the Fillmore and Mission Street Line No. 23, running but seven cars every nine minutes. This is very poor service, as one can walk the intervening four blocks in less time, but transfers are not accepted there. This matter needs adjustment.

Pacific Avenue

Number of cars, 3. Minimum headway, 7 minutes.
ROUTE—On Pacific Avenue from Polk to Broderick Street.

Very poor service is given on this line. People patronize the Washington and Jackson line, just one block south and running every five minutes during the day to $3\frac{1}{2}$ to 4 minutes during the rush hours. The Pacific Avenue line is not the line it was before the fire, when it went over Polk and Larkin as well, but if it is going to be resumed again it should have enough cars to give good service. Very few people ride at present.

Washington and Jackson

Maximum number of cars, 11. Minimum headway, $3\frac{1}{2}$ to 4 minutes.
ROUTE—Powell and Market via Powell to Jackson to Steiner to Washington to Powell to Market.

This cable line runs 8 cars on a 5-minute headway during the day. It is not overcrowded then, but often falls way behind the headway. In the evening 11 cars are put on a $3\frac{1}{2}$ to 4 minute headway, which is nowhere near enough to handle the crowds comfortably. This line should run to the Ferry to relieve the Sacramento Street cable line, as that part of the city is growing very rapidly. The cars are not needed on the Powell and Mason line as much as they are east of Powell. A few more cars on Powell Street could then handle the traffic very nicely. The service is very good on Powell at present.

California Street Cable

Maximum number of cars, 19. Minimum headway, $2\frac{1}{4}$ minutes.
ROUTE—On California from Market to Presidio Ave.

This company operates a maximum number of 19 cars with a $2\frac{1}{4}$ -minute headway, evenings, and a 5-minute headway during the day. The cars give very good service, though more cars could be used mornings and evenings during the rush.

Hyde Street

Maximum number of cars, 12. Minimum headway, 4 to 6 minutes.

ROUTE—Market and O'Farrell via O'Farrell to Jones to Hyde to Jefferson Street.

A maximum of 12 cars are operated on the Hyde Street line, with a 4-minute headway during the rush hours, and a 6-minute headway during the day. The service is fair on this line and is not much overcrowded, except from Market Street to Hyde and California, between 5 and 6 p. m.

Jones Street

Two cars are run on Jones Street, from Jones and O'Farrell to Market and Jones. They are all that are needed on this run.

GEARY STREET CABLE LINE (Geary St., Park & Ocean R. R. Co.)

Maximum number of cars, 22. Minimum headway, 3 minutes.

ROUTE—Geary and Market via Geary to Point Lobos Ave., to 5th Ave., to Fulton.

This line gives the best service in the city, with the exception of transferring,—all the cable lines seem to give better service than the electric lines in regard to the number of cars furnished when compared with the number of passengers carried and in regard to the uniformity of headway maintained.

A 4-minute headway is maintained up to 4 p. m., when a 3-minute headway with 22 cars is maintained. At 9 p. m. the headway is cut down to 4 minutes again, and gradually to 5 minutes for the last cars. A car is very seldom crowded and it is about the only line in the city where the passengers are reasonably sure of getting a seat.

UNION STREET LINE (Presidio & Ferries R. R. Co.)

Maximum number of cars, 17. Minimum headway, 4 minutes.

ROUTE—From Ferry Depot via East Street to Washington to Montgomery Ave., to Union to Baker to Lewis Street.

17 cars are operated on this line from 5 to 7 p. m. on a 4-minute headway. The balance of the day 14 cars are operated on a 5-minute headway. This line gives in many respects the best service of any electric line in the city. The cars are small, though the heavy type of car would have trouble in climbing some of the hills, and they get a little crowded from 5 to 7 in the evening. A few more cars on this line would give ideal service for the amount of travel.

San Mateo Electric Line

Maximum number of cars, 12. Minimum headway, 15 minutes.

ROUTE—5th and Market via 5th to Mission to Colma to Cemeteries to San Mateo.

This line always carries a great many passengers and while the service is good enough during the day, an extra car or two would help mornings and evenings. A car leaving every 15 minutes is considered good service for suburban work, but on Sunday the line does not begin to handle the traffic. Twice the number of cars are needed to transport the crowds that go down the peninsula to the cemeteries, stations and towns on the road and to San Mateo. Coming home Sunday evenings, the people fight to get on and the cars are terribly overcrowded. The cars are large, high-powered cars and make good time on the runs, but extra provision should be made for the Sunday and holiday travel. If some of the cars started from Mission and Ocean Avenue, or even south from the Cemeteries, it would relieve the travel, as there is no need of all the San Mateo cars duplicating so much of the Mission Street line. The charge of 25 cents to San Mateo is very modest, much cheaper than by the S. P. train, though the time is not so good. Over two hundred passengers are carried per trip during the busy hours on Sundays.

EXTENSION LINES

Fillmore Hill

Three cars are running continually on this line on Fillmore from Broadway to Bay Street and give good service. However, four cars would naturally give better service and are really needed, not only during the morning, but in the evenings when people are returning from work. These cars carry a great many passengers each trip all through the day.

The cars are only equipped with hand grip brakes, and should have air brakes as well. Too much caution cannot be observed, where the lives of passengers are continually in danger, going down these steep hills.

Clement

Maximum number of cars, 5. Minimum headway, 9 minutes.

ROUTE—Parker Ave. and California St. via Parker to Richmond Ave. to 1st Ave. to Clement to 33rd Ave. to Point Lobos Ave. to Sutro Baths.

The Clement line was the old Sutro line before the fire, but is nothing more than an extension line now. A 9-minute headway gives poor service, but there are not many people who patronize the line. Mornings and evenings the cars get a good load, but are never crowded. The track is in good condition all the way, consequently good time is made. There are no crowded transfer points on the line, and the only time the line would really need better service would be during the summer

Castro (Cable Line)

Maximum number of cars, 4. Minimum headway, 5 minutes.
ROUTE—South on Castro from 18th to 26th Street.

Acting as an extension of the Market Street line No. 8, which stops at 18th and Castro, this line completes the route of the old Castro line before the fire. More cars and a better service are needed, during the morning and evening rush especially. The Market Street line is greatly crowded, many of the passengers continuing on this line over the steep Castro Street Hill.

There are no transfer points, except with the Mission and 24th Street line at Castro and 24th.

San Bruno

Maximum number of cars, 5. Minimum headway, 11 minutes.
ROUTE—22nd and Mission via 22nd to Howard to 26th to Folsom to Army to San Bruno Avenue to 5-Mile House.

The most important of all the extension lines, giving very poor service under an 11-minute headway. The cars are crowded with the working people mornings and evenings, and for their benefit better service should be given during the rush hours, though during the day the service is good enough.

The Bryant and Folsom Street lines are the only transfer points on the line. Most of the passengers board the cars at the northern terminus with transfers from the lines running on Mission Street.

Railroad Avenue

Maximum number of cars, 2. Minimum headway, 12 minutes.
ROUTE—The extension of the 8th and 18th Street line and the Kentucky Street line, south on Railroad Avenue from 22nd Avenue to the Reis Tract.

A 12-minute headway is poor service at any time of the day. As there is considerable travel on this line, at least 2 more cars should be added, especially for the morning and evening hours, when the working people are going to and from work. The country around the Reis Tract is growing rapidly, many small houses are being built and this line is the only means by which the city can be reached.

SOUTH SAN FRANCISCO R. R. & P. CO.

Maximum number of cars, 2. Minimum headway, $\frac{1}{2}$ minute.

The South San Francisco Railroad & Power Company, according to the headway, gives the best service of any line in the city, but in reality it is an unimportant line with a fair amount of travel. The line is new and is used to convey the passengers from the cemeteries and San Mateo line (turning off toward the east from a point near Baden) to South City and the slaughter houses of South San Francisco. The line gives good service and needs no attention.

EXTENSION LINES OF ONE CAR EACH

Devisadero

One car travels back and forth on Devisadero Street between Jackson and Sacramento Streets. It is surprising to see how many people ride on this car rather than walk up the three blocks. The line itself is a farce and would give better service if the car ran continually instead of laying over at each end of the line for several minutes.

This line should be extended along Jackson Street and along Sacramento to Fillmore. (See criticism on the Sacramento Cable line and the Fillmore and Mission line No. 23).

Fulton

One car runs every 20 minutes on Fulton Street from 8th Avenue (the extension of the Geary, Turk and Eddy, McAllister, and Hayes Street lines) to 36th Avenue. The only travel on the line consists of the patrons of the Casino Road House and the Hotel Cairns at 36th Avenue and Fulton. In fact, this line was extended out from the Casino to 36th Avenue when the Cairns was finished. However, it serves to take people to Stow Lake and Spreckels Lake in Golden Gate Park. Fulton Street is graded through to the beach and the railroad company has promised to continue the line out there. This would aid greatly in handling the Sunday and holiday traffic to the beach.

Parkside, Ocean and Beach

But one car runs on this line every 24 minutes from 20th and H Street, via 20th to Parkside.

There is very little travel on this line yet, except on Sunday, though the growing district around Parkside promises to keep this line busy before long. The transfer point is in the center of the Park side tract and right in front of the real estate office. This line might just as well continue on to the end of the Parkside-San Mateo line. The line does not run to the ocean or beach as the name would imply.

Parkside and San Mateo

But one car runs on this line every 30 minutes from the center of the Parkside tract (the end of the Parkside, Ocean and Beach line) through the Parkside tract to the Sloat Boulevard to Ingleside (the end of the Ingleside line). It might better be called the Parkside-Ingleside line, as it has nothing to do with San Mateo or the San Mateo line, except that it connects with the latter through the Ingleside line. The car running on this line is in poor condition and has not the power to climb the smallest hill. The line should run through to 20th and H, instead of stopping where it does. There is little travel on this line except on Sunday.

Bosworth

One car runs on this line every 10 minutes from Mission and Bosworth Streets, via Bosworth to Chenery and Bosworth, where it meets the Guerrero Street line. The line has little travel and is only used because of the bad condition of the streets in this locality.

GENERAL REMARKS

The United Railroads stated that their present runs and schedules are only temporary; that more cars would be run as soon as they could get the power. The Company has not enough modern cars on hand or ordered to run the system in a manner that would accommodate the people and give them a service where they would not have to spend much time waiting for cars, and then take a chance on even getting a seat. The city authorities in New York compel the Interborough Rapid Transit Company to run so many cars a day on each line, irrespective of the season of the year, the crowds or the occasion. Something of that nature here would at least give the public better service.

SUGGESTIONS

Of all the suggestions that could be mentioned, the most welcome would undoubtedly relate to facilities for handling the crowds.

Before the fire, the California Street line employed two conductors to each car, from the Ferry, as far west as the traffic demanded. If this scheme were carried out on the Sutter, Turk and Eddy, Kearny, Polk and Larkin, Fillmore, Market, Valencia, Haight, McAllister, and Hayes Street lines, it would do away with a great deal of delay and annoyance. The extra cost to the railroad company would be more than compensated for in the extra fares collected, that are now lost through overcrowding. One conductor should do nothing but collect fares, while the other gave the bells to start and stop the car, and watched the passengers getting on and off, thus preventing sudden starting when passengers are partly on or off.

This would only be necessary during the rush hours from 4:30 p. m. to 8:30 p. m.

Trailers

Another old plan, used to great advantage on the Kearny line before the fire, was the use of "trailers" to accommodate traffic during the rush. Trailers could be used on the Valencia, McAllister, Market, Turk and Eddy, Kearny, Sutter, Polk and Larkin and Mission Street lines. Very little more power would be required for the high-powered cars to tow trailers on the level streets. But one motorman would be needed instead of two, as in the case of putting on extra cars; less power would be needed than the extra motors would use with extra cars on; old cars could be used for trailers, and the cost of equipment to the railroad company would be a great deal less than in the case of putting on extra cars to accommodate the same number of people.

Push Buttons for Stopping Cars

All of the new, heavy type, cars are equipped with push buttons between the windows. In Washington, D. C., probably the best regulated city in the world for street car service, as well as in St. Louis, Denver and Omaha, this method is used most successfully. Passengers ring the bell to stop the car, by pushing the electric button, before coming to their destination. In this way the conductor is saved a great deal of time and passengers are not carried beyond their destination when in a crowded car because they cannot attract the conductor's attention.

Doors

The present double doors—a patented labor saver that consumes more time in the end—are a decided failure. The doors stick and work hard, preventing ladies and any one but a strong man from opening them. The manipulation of one door is supposed to work both. It would be better to have them independent of each other.

Strap-Hangers

A new style strap for ringing up cash fares and transfers has been installed in some of the cars instead of the brass lever as of old. These straps hang alongside of the straps for the support of those who have to stand. They are so much alike that passengers find themselves ringing up fares. Their use should be discontinued.

Trolleys

A great deal of delay and annoyance is caused by the trolleys jumping. This is due in part to the self-winding reels that hold the trolley rope, failing to release the rope when the trolley goes up, thus keeping the trolley from being in contact with the wire.

Then again, the connections between circuits and the switches in the trolley wire at crossings and turns are not always made at a gradual curve. The car, in rounding a sharp turn very fast, prevents the trolley wheel from following the groove or the switch or the frog in the wire, whichever the case may be, and the trolley jumps.

Owl Cars

A trip on an owl car in the early morning is a revelation. Smoking is indulged in all over the car, contrary to the city ordinance. The motormen and conductors smoke. Even a policeman, returning from duty, joins in breaking the law he should uphold. Passengers expectorate in the car and think nothing of putting their feet on the seats. The law should be enforced in the early morning as well as any other time of the day or night.

Crowded Rear Platforms

The ordinance prohibiting smoking in street cars except on the rear platforms, after the first few kicks were registered was obeyed very well. The only drawback is the consequent crowding of the rear platforms. The company's request that passengers leave by the front door should be made a law. Then the conductors (especially with the

two conductors to the car plan) should keep the rear platform clear on the outside or entering side. This was done on the Kearny Street line before the fire, with great success, backed up, of course, with an ordinance to that effect. More time is lost by passengers getting on and off, or rather their inability to get on and off, than by any other delay countenanced on the road. If need be, the entrance and exits could be set off with a railing.

Right of Way for Street Cars

Street cars should have the right of way over everything but ambulances and the fire and police departments. The railroads are for the transportation of the public and it should be a misdemeanor, punishable by imprisonment and fine, or both, for buggies, wagons and trucks to ride the rails as they do; getting out of the tracks just in time to avoid collision, thus delaying the cars. In New York and Chicago, where the cars have to go fast to accommodate the masses, people no more think of getting in the way than they do in getting in front of a locomotive. If teams were forced by law to keep off of the tracks, except in crossing, we would not see a whole line blocked by a wagon with a broken wheel or axle, or a horse that has fallen down.

Car Routes

The Sutter Street line should run to the Ferry by all means. Horse cars are a disgrace to a modern city.

The Turk and Eddy line, which now gives poor service, could be improved with more cars. A good idea would be to have some cars switch back at Eddy and Market, instead of going to the Ferry, as some cars on the Ellis and O'Farrell line now switch back at Ellis and Market. Cars going through to the Ferry should not stop to take on passengers from the switch back point to Fillmore Street, or some cross streets far enough west where the traffic slackens. Cars starting from the intersection of Market Street could pick up the passengers between these two points.

In this way better time could be made and more people handled in a shorter space of time.

TRANSFER SUGGESTIONS

California Street Line

The California Street line has always transferred west to the Turk and Eddy line at Presidio Avenue, the western terminus of the California Street line. The large number of people who patronize this transfer point must walk one block north on Presidio Avenue to get the Turk and Eddy line at Sacramento Street and Presidio Avenue.

If the transfers could be used at California and Devisadero Streets,

where the two lines intersect (but four blocks from the present transfer point) it would save passengers the nuisance of having to walk the block, which is especially disagreeable in winter weather.

The two companies seem willing to honor transfers at this point and to the Sutter line at California Street and Presidio Avenue, but they will not honor transfers east bound, and west bound on Market Street from the Hyde Street or Jones Street lines. This privilege would be a great convenience to passengers and seems fair, considering that it is done at the western end of the California Street line.

Kentucky Street Line

A passenger coming north from the Potrero must transfer to a 3rd and Kearny car at 3rd and Townsend (the southern terminus of the 3rd and Kearny line) if he wishes to continue in a northerly direction. The transfer is not honored north on Kearny at 3rd and Market, which is the northern terminus of the 3rd and Kentucky line). This is unfair to strangers, as the passengers naturally ride to 3rd and Market, the end of the line, before transferring north on Kearny.

Geary Street Line

The Geary Street, being an independent line, is unable to honor or issue transfers with the other lines. However, the United Railroads, Presidio and Ferries and the California Street Cable R. R. Company, the only other companies operating cars in this city, honor transfers between their lines at certain points. It would be a great convenience if the Geary line were allowed to transfer east and west on Market and to one or two cross lines, the Geary line honoring transfers from the other lines at these points. The excellent service of the Geary line is handicapped by its being unable to issue or honor transfers.

Other than these points mentioned, the transfer system is very fair and elastic. Passengers can go from any part of town to another, by the intelligent use of transfers, on a single fare.

There is just one more criticism to make, the United Railroad (the company referred to in this report) has adopted a system of numbering the lines, placing a number about eighteen inches high on the front of the roof of each car. These numbers are illuminated at night. The idea could be improved if the lines and their designated numbers were printed on the backs of the transfers, so strangers or any one could know them, instead of the large warning, "Not transferable—no stop-over," which now occupies the back of the transfers, a warning that is not needed and is valueless.

Respectfully submitted,

(Signed) Warren Manley,

Inspector.

SPECIAL REPORT ON THE NUMBERING OF THE STREET CAR LINES

Pursuant to instruction a special examination has been made of the new system of numbering street cars to designate their routes, and I beg to report as follows:

The numbers used on the street car lines at present are as follows:

No. 1	Sutter	No. 14	Cemeteries
No. 3	Jackson and Sutter	No. 15	3rd and Kearny
No. 4	Turk and Eddy	No. 16	Kentucky
No. 5	McAllister	No. 18	Mission and Polk
No. 6	Masonic	No. 19	Bryant and Polk
No. 7	Haight	No. 20	Ellis and Ocean
No. 8	Market	No. 21	Hayes and Ellis
No. 9	Valencia	No. 22	Fillmore
No. 10	Guerrero—Glen Park	No. 23	Fillmore and Mission
No. 11	Mission and 24th	No. 24	Mission and Chutes
No. 12	Ingleside		

It will be noticed that there are no numbers 2, 13, 17. Numbers 10, 11, 12, 14, 15, 16 have not been placed on the respective cars as yet.

The defects in the system are on the following lines:

Numbers 1, 5, 10, 15, 20.

The Sutter Street Line No. 1: Every other car goes through to the beach, while the others stop at 6th Ave. and California. Separate numbers should be used for these lines.

The McAllister Street Line No. 5: Every other car goes to the Chutes, while the others switch back at the car house at McAllister Street and Central Avenue. These cars should have separate numbers.

There are two lines numbered 10. The Guerrero Street operating on Mission Street from the Ferry to 14th Street and San Jose Avenue and Ocean View, and the Glen Park line, operating on Mission Street from the Ferry to 14th to Guerrero and Chenery Streets and San Jose Avenue. These lines should have separate numbers.

There are two lines using No. 15. The Kearny Street cars that switch off at Kearny and Broadway to the Ferry, and those that switch off to North Beach. These lines were numbers 15 and 17, but 17 was consolidated with 15. The two numbers should be used.

The Ellis and Ocean View line No. 20 should have two separate numbers, as every other car goes through to the beach, while the rest switch back at 19th Avenue and H Street.

Respectfully submitted,

Jan. 7, 1909.

(Signed) Warren Manley,

Inspector.

SPECIAL REPORT
ON THE POSSIBILITY OF RUNNING THE SUTTER STREET
LINE TO THE FERRY ON THE INNER TRACKS
ON MARKET STREET

Pursuant to instructions a special investigation has been made of the number of cars on the central tracks on Market Street from Sutter Street to the Ferries, to ascertain whether it would be practicable to run the Sutter Street cars through to the Ferries, over the inner tracks without overcrowding the tracks or loops, and I beg to report as follows:

There is no doubt but that this could be done, after putting in new switches at Sutter and Market. The extra cars that would run on Market Street from the Sutter Street line would not overcrowd the tracks now in use. Three times the present number of cars now running on Market could be run before overcrowding. The following facts will prove these statements:

The maximum number of cars running on the Sutter Street line is 23, with a 3-minute headway, and 7 on the Sutter and Jackson line with a 6½-minute headway.

On the afternoon of January 6th, cars operating on the Sutter Street lines left the terminus at Sutter and Market as follows:

6th Avenue—Sutter Street.....	3:52 p. m.
Cliff " "	3:55 p. m.
Jackson and Sutter.....	3:56 p. m.
6th Avenue—Sutter Street.....	3:58 p. m.
6th Avenue—Sutter Street.....	4:00 p. m.
Jackson and Sutter St.....	4:03 p. m.
Cliff—Sutter Street.....	4:03½ p. m.
Jackson and Sutter St.....	4:20 p. m.

The same afternoon cars operating on Sutter Street passed Kearny as follows:

6th Avenue—Sutter Street.....	4:30½ p. m.
6th Avenue—Sutter Street.....	4:33 p. m.
Jackson and Sutter.....	4:34½ p. m.
Cliff—Sutter Street.....	4:37 p. m.
6th Avenue—Sutter Street.....	4:40 p. m.
Jackson—Sutter Street.....	4:41 p. m.
6th Avenue—Sutter Street.....	4:41½ p. m.

The round trip time from Sutter and Market to the Ferry is about 8 minutes.

		Passed Sutter and Market	Passed West bound at	Elapsed time
Valencia	Street car No. 1588	3:56 p. m.	4:03½ p. m.	7½ min.
Market	Street car No. 1649	3:56 p. m.	4:04 p. m.	8 min.
Haight	Street car No. 1713	3:56 p. m.	4:04½ p. m.	8½ min.
Turk and Eddy St. car	No. 1746	3:56 p. m.	4:04 p. m.	8 min.
Masonic	Street car No. 1649	3:58 p. m.	4:06 p. m.	8 min.
Turk and Eddy St. car	No. 1724	3:58 p. m.	4:06 p. m.	8 min.

From the above experiments it will be seen that no more than five cars of Sutter Street lines, six at the most during the rush hours, will be on the Market Street tracks at the same time. Of the lines now running on Market, the Masonic, Turk and Eddy, Market, Valencia, McAllister, Haight Street lines, there are rarely more than 12 of these cars on the Market Street tracks from Sutter to the Ferry and back at the same time during the rush hours.

The addition of five or six cars from Sutter Street would not overcrowd the Market tracks; it would help relieve the traffic at the Ferry and would be a great benefit to passengers traveling on the Sutter Street lines, as evidenced by the number of people patronizing the two horse cars, now used as an extension of the Sutter Street lines, and the number of people transferring at the junction of Sutter and Market.

The lines now operating on Market Street are as follows: (This is the maximum number).

No. 4	Turk and Eddy	20 cars	4 minute headway
No. 5	McAllister	18 cars	3 minute headway
No. 6	Masonic	12 cars	6½ minute headway
No. 7	Haight	21 cars	2½-3 minute headway
No. 8	Market	17 cars	3 minute headway
No. 9	Valencia	23 cars	3 minute headway

Respectfully submitted,

Jan. 7, 1909.

(Signed) Warren Manley,

Inspector.

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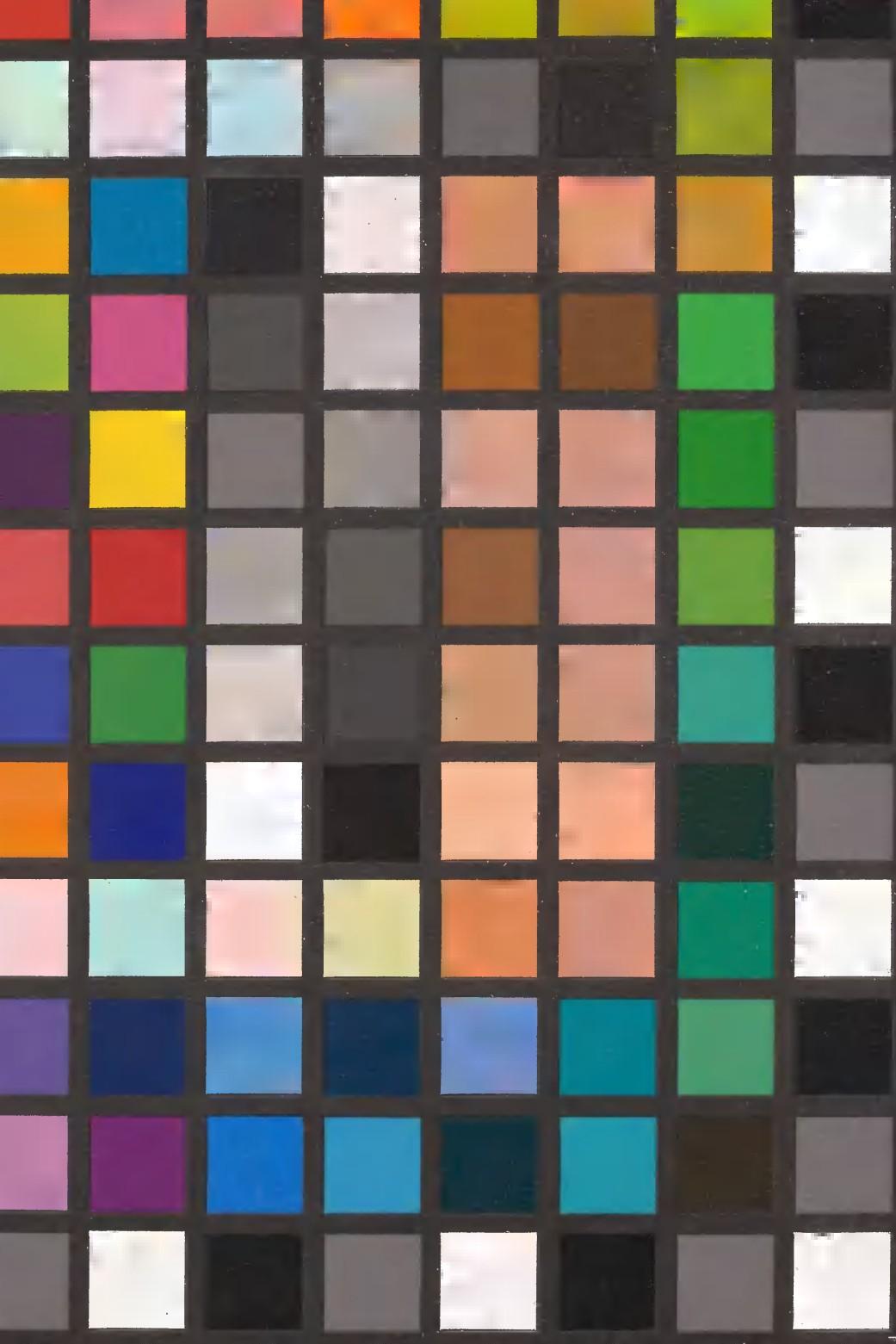
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